

1 1. A method of adding a word to a speech
2 recognition vocabulary, comprising:
3 receiving a spelling of the word,
4 receiving an utterance of the word,
5 creating a collection of possible phonetic
6 pronunciations of the word by:
7 comparing the spelling to a rules list of
8 letter strings with associated phonemes, wherein the
9 comparing includes searching the letter strings of the rules
10 list for a letter string from the spelling of length greater
11 than one letter, and
12 limiting the collection of possible phonetic
13 pronunciations to phonetic pronunciations containing
14 phonemes associated with the letter string of length greater
15 than one,
16 using speech recognition to find a best-matching
17 pronunciation from the collection that best matches the
18 utterance of the word, and
19 adding the word to the speech recognition vocabulary
20 using the spelling and the best-matching pronunciation.

1 2. The method of claim 1 wherein said step of
2 comparing includes searching the letter strings of the rules
3 list for a longest length letter string from the spelling.

1 3. The method of claim 2 wherein said step of
2 limiting includes limiting the collection of possible
3 phonetic pronunciations to phonetic pronunciations
4 containing phonemes associated with the letter string of
5 longest length.

1 4. The method of claim 1 wherein the step of
2 comparing includes starting the comparing with letter

3 strings from the spelling beginning with a first letter of
4 the spelling.

5. The method of claim 4 wherein the step of
comparing includes searching the letter strings of the rules
list for an initial longest length letter string from the
spelling beginning with the first letter.

1 6. The method of claim 5 wherein the step of
2 comparing includes searching the letter strings of the rules
3 list for a subsequent longest length letter string from the
4 spelling beginning with a letter following the last letter
5 in the initial longest length letter string.

1 7. A method of adding a word to a speech
2 recognition vocabulary, comprising:
3 receiving a spelling of the word,
4 receiving an utterance of the word,
5 creating a net of possible phonetic pronunciations
6 of the word by comparing the spelling to a rules list of
7 letter strings with associated phonemes,
8 using speech recognition to find a best-matching
9 pronunciation from the net that best matches the utterance
10 of the word, and
11 adding the word to the speech recognition vocabulary
12 using the spelling and the best-matching pronunciation.

1 8. A method of assigning a pre-filtering class to
2 a word, comprising:
3 matching first two letters of the word to classified
4 words starting with the same two letters to form a sub-list
5 of classified words.

6 matching phonemes of the word to phonemes of the
7 classified words in the sub-list to form a class list, and
8 placing the word in the class list.

1 9. The method of claim 8 wherein the step of
2 matching phonemes of the word to phonemes of the classified
3 words includes matching the first four phonemes of the word
4 to the first four phonemes of the classified words.

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10. A method of assigning a pre-filtering class to
2 a word, comprising:

3 performing a direct look-up of a first phoneme of
4 the word in a database of classified words organized
5 alphabetically by their phonemes,

6 matching the first phoneme of the word to a first
7 word in the database having the same first phoneme,

8 selecting the first word in the database having the
9 same first phoneme and ~~109~~ following words in the database
10 to form a sub-list,

11 matching the first phoneme of the word to the first
12 phoneme of the classified words in the sub-list to form a
13 class list, and

14 placing the word in the class list.

1 11. The method of claim 10 wherein the step of
2 matching the first phoneme of the word to a first word in
3 the database having the same first phoneme includes matching
4 the first four phonemes of the word to a first word in the
5 database having the same first four phonemes.

1 12. The method of claim 11 wherein the step of
2 selecting the first word in the database having the same

3 first phoneme includes selecting the first word in the
4 database having the same first four phonemes.

1 13. The method of claim 12 wherein the step of
2 matching the first phoneme of the word to the first phoneme
3 of the classified words in the sub-list includes matching
4 the first four phonemes of the word to the first four
5 phonemes of the classified words in the sub-list.

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